





Our Santee Cooper teams again have proven their dedication when it comes to keeping the lights on for our customers and for others in need. While winter storms were wreaking havoc on power systems along the East Coast, the people of St. Croix were still living without electricity because of the powerful summer hurricanes that devastated the Caribbean. Santee Cooper crews responded to both.

On Jan. 3, Winter Storm Grayson blew into South Carolina, covering the coast with ice and snow, over 7 inches in some areas. While temperatures plunged, forcing schools, state offices and many other businesses to cancel their normal routines, Santee Cooper generation crews were working overtime.

Generation faced considerable challenges because of temperatures that were below freezing for several days, and many employees stayed at generating stations to ensure coverage 24 hours a day. Employees faced, and overcame, issues including thawing frozen piping, replacing outside equipment, repairing boiler leaks, and chipping and shoveling limestone and coal-feeding equipment. In many instances, they had to think on their feet, be flexible and be innovative. It was taxing work in extreme conditions and it allowed our customers to keep their lights and heat operating.

Santee Cooper distribution crews also made sacrifices to help restore electricity to the people of St. Croix, many of whom had been without power since Sept. 6. More than half of Santee Cooper’s line technicians volunteered for the daunting job of helping reconstruct St. Croix’s power grid, and leaving their families during the holidays. Twenty six were selected, with 13 leaving Nov. 20 and returning Dec. 21, and the additional 13 leaving



Dec. 20 and returning Jan. 21. One article in this issue of PowerSource chronicles our crews in St. Croix and how their efforts made a difference in the lives of the people they met.

The dedication, selflessness and determination of all of Santee Cooper’s employees amaze me each day. I am proud of them, and proud of how they are serving others.

*James L. Brogdon*

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# Patient For Power

by Paul Zoeller

## Features

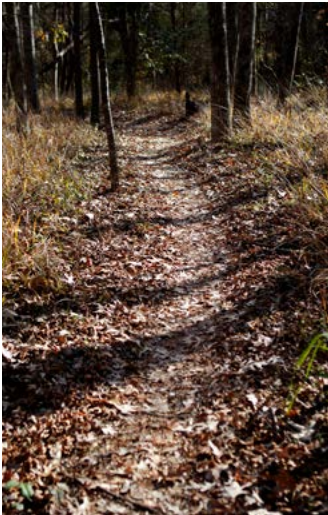


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Photo by Paul Zoeller

Jamie Anderson, Santee Cooper line tech B, works high above the town of Christiansted as Santee Cooper crews help restore power on St. Croix in November 2017.







# POWERING SOUTH CAROLINA: Jobs and Prosperity

by Mollie Gore Photography by Paul Zoeller



Santee Cooper Distribution Line Technician Wesley Hill repairs lines along U.S. Highway 17 Bypass in Myrtle Beach.

SINCE CRANKING UP OUR FIRST HYDRO-ELECTRIC GENERATING UNIT MORE THAN 75 YEARS AGO, SANTEE COOPER'S RELIABLE ELECTRICITY, LOW RATES, AND STRONG ECONOMIC DEVELOPMENT PARTNERSHIPS AND INCENTIVES HAVE ATTRACTED INDUSTRIES PROVIDING NEARLY 75,000 JOBS ACROSS SOUTH CAROLINA.

Our loans, grants, other incentives and facilities have supported industrial recruitment in all 46 counties of the state. Governors, members of Congress and other state leaders have turned to Santee Cooper time and again to help with a project.

In the early 1990s, Gov. Carroll Campbell relied on us to redevelop the former Myrtle Beach Air Force Base after the federal government closed it. Today that property holds industrial and educational facilities and The Market Common, a planned residential, business and retail community.

"Santee Cooper continues to be a great partner in economic development," said Josh Kay, president and CEO of the Myrtle Beach Regional Economic Development Corporation. "With their assistance, we continue to transform the Myrtle Beach regional economy from a seasonal tourism-centered model to a modern, economically diverse, year-round community."

More recently, former-Gov. Nikki Haley and Commerce Secretary Bobby Hitt involved Santee Cooper in efforts to win Volvo's first U.S. automobile manufacturing plant. Among other incentives, Santee Cooper was able to

purchase a 6,800-acre tract and sell the plant site to Berkeley County, displaying a nimbleness that is widely recognized and highly valued among economic development leaders.

"Santee Cooper, we could not have done this without you," Gov. Haley said during the plant groundbreaking in 2015. Volvo CEO Lex Kerssemakers also praised Santee Cooper, "who keeps it all on schedule," at that event.

Santee Cooper and the South Carolina Power Team, the economic development arm of the state's electric cooperatives, have worked together since 1988 recruiting jobs and recruiting industry. Together, we've helped secure more than \$14 billion in capital investment, including the Volvo plant.

Next door to the Volvo plant, Santee Cooper is developing Camp Hall, a unique and workforce-centric commerce center that will allow companies and their employees to merge commerce, community and convenience.

"As an electric utility owned by the people of South Carolina, it is important that Santee Cooper do more than just provide additional buildings, land and incentives for industrial recruitment,"





At right, a Nucor employee keeps a watchful eye on an electric arc furnace. Nucor lobbied successfully to have Santee Cooper provide the plant's electricity.

said Pamela Williams, senior vice president of corporate services for Santee Cooper. "We need to constantly raise the bar, and we will be doing that with Camp Hall. This will

be a first-of-its-kind commerce park that will be a workplace destination, and not just a place to work." More details about Camp Hall will be announced soon.

Santee Cooper is no stranger to growing the Lowcountry economy. Perhaps one of our most important contributions came in the wake of plans to close the Charleston Navy Base and shipyard. We helped create the Charleston Regional Development Alliance, which still works today to strengthen regional employment and prosperity by recruiting leading global corporations, talent and entrepreneurs to the tri-county area of Berkeley, Charleston and Dorchester. Several Santee Cooper executives have served as chairman of the CRDA Board or as a member, including Williams, a current board member.

Tied to that same timeframe, we helped bring in Nucor Steel. In fact, Nucor President Kenneth Iverson announced the new Berkeley plant in 1995 at a press conference in Santee Cooper's Moncks Corner auditorium. This \$500 million investment created hundreds of jobs.

Nucor wanted Santee Cooper to provide the plant's electricity and actually lobbied the General Assembly to change the service territory map to make that possible. More than 20 years later, Nucor is Santee Cooper's largest industrial customer.

Thanks primarily to the Nucor announcement, Berkeley County had a \$1 billion year in economic development announcements in 1995, the first time a South Carolina county reached that

milestone. The impact lasted far beyond 1995, as well. A total of 10 additional industries (and two additional Nucor expansions) announced facilities in Berkeley County from 1995 to 1998, with a total worth of \$787 million and 1,125 new jobs.

We were instrumental in bringing the Charleston area its first, large Class A industrial park in the 1990s, and the result – Mt. Holly Commerce Center – is now home to a Google data center that just recently announced a major expansion. At the park's ribbon-cutting in 1999, Gov. Jim Hodges said, "the forward-thinking decision ... to build the Mt. Holly Commerce Park will allow us to recruit more quality businesses to the Lowcountry."



The Mt. Holly Commerce Center reflects a partnership between Berkeley County, Alumax and Santee Cooper. It opened in October 1999. Santee Cooper paid for the construction and was paid back by Berkeley County over several years. Alumax provided land for the park, and it is served by Berkeley Electric Cooperative.

Industry needs reliable water as well, and Santee Cooper operates two wholesale water systems on Lake Moultrie and Lake Marion. At the ribbon-cutting for the Lake Marion system, U.S. Rep. James Clyburn noted the tremendous

benefit the water treatment plant would provide to communities along Interstate 95 that need reliable, clean and safe drinking water.

"Access to potable water is also a key component to attracting economic development to the I-95 corridor," Clyburn said then.

Santee Cooper's economic development incentive programs, however, are probably where we have made our greatest impact beyond the Lowcountry. The South Carolina Power Team, Santee Cooper and the state's electric cooperatives announced in 2007 a series of grants to help certify industrial sites, provide professional development scholarships for economic development personnel and support economic development strategic planning at the local level. A few years later, we upped our investment in South Carolina significantly through new loan and grant programs, which have contributed more than \$110 million to build industrial speculative buildings, help develop two inland ports, and provide site readiness and closing funds statewide. More than \$80 million of that total is in loans, with the rest provided through our grant programs.

Sigmatex (Orangeburg County), Wyman-Gordon (Dillon County) and Coca-Cola Consolidated (Jasper County) are among the industries locating in buildings we helped make possible. Dorchester County has similar hopes for a new speculative building at Winding Woods Commerce Park, built with a \$4.2 million Santee Cooper loan. The building has already drawn interest from manufacturers.

"I can't guarantee you that if we build it, they will come," said John Truluck, Dorchester County Economic Development director, in a November interview with the Charleston Post and Courier. "But I can guarantee you that if we don't build it, they won't come."



Above, Santee Cooper harnesses the energy from lakes Marion and Moultrie at the Jefferies Hydroelectric Station. Santee Cooper operates two wholesale water systems, which help provide potable water to rural and growing areas in South Carolina.



# (50) Million-Dollar MILESTONE



by Mollie Gore



## **\$50 million. That's a lot of money to help customers use less of our product.**

Sure, Santee Cooper offers rebates to help our customers install energy-efficient heat pumps and insulation and make other home improvements, all so they can save money and energy on their monthly electric bills. But the rebates don't cover the full cost of those improvements.

So we also offer Santee Cooper Smart Energy Loans, low-interest loans that help with some of those purchases.

Santee Cooper has loaned residential customers more than \$50 million over the past 35 years. We started making loans for customer energy efficiency upgrades in 1982, before energy efficiency was trendy.

That loan pot has helped 8,534 eligible customers install 7,381 heat pumps, 2,381 insulation upgrades, 3,040 sets of replacement windows and 82 solar arrays. Average loan amounts range from around \$500 to \$20,000, depending on the cost of the upgrade and the customer's need.

"The goal of our loan program has always been to help customers with the upfront investment in a product or process that will save them money immediately, year-round, and over the life of that product," said Jim Rabon, Santee Cooper's manager of conservation and energy efficiency.

"With \$50 million loaned over 35 years, this is just one way we are putting our money to work for our customers' benefit."

Payback times are up to five years for energy efficiency programs and up to 10 years for renewable energy installations. At press time, the interest rate for these loans was 2.25 percent, and residential customers can apply for loans in 2018 to offset the costs of heat pumps, heat pump water heaters, duct replacements and solar panels.

Santee Cooper Smart Energy Loans are just part of our overall campaign to help customers save energy and save money. We launched Reduce The Use in 2009, with a full menu of rebates and other incentives to help customers cover the initial costs of home improvements that would increase their energy efficiency. The loan program was already well established at that point, and it has proven a significant benefit to customers who wanted more help than the rebate provided.

For more  
information, visit  
[www.  
santeecooper.com/  
reducetheuse](http://www.santeecooper.com/reducetheuse).



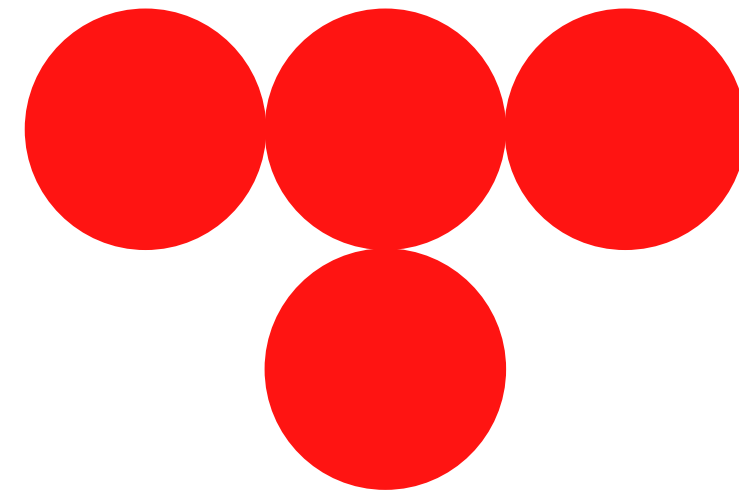


by Susan Mungo

Photography by Paul Zoeller

# TEKNOWARE

## Lighting the Way in Horry County



Looking through the line of shovels and hard hats to the bulldozer moving dirt in the background, attendees had the feeling they were witnessing more than a groundbreaking ceremony for a company bringing 45 jobs to the area. In fact, the day was also about teamwork, the end of an era, and the promise of a brighter future for many.

On Nov. 14, 2017, Teknoware, a company founded in Finland in 1972, broke ground on what was the last available parcel in the Atlantic Center, the first commerce park established in Horry County.

This is economic development working as it should. The Atlantic Center, established in 1987, was a joint venture between Santee Cooper and Horry County and was designed

to draw technology and manufacturing to an area in need of jobs and industry. Once Santee Cooper recovered our investment, we turned the commerce park over to Horry County for continued growth.

Since 1987, companies have come and gone but now Teknoware joins Metglass Inc., Frito Lay, Glendinning Products, Southeastern Paper Group, Chippewa Aerospace, Horry Georgetown Technical College (HGTC), Coastal Carolina University, ABC 15 News and many other businesses that call the Atlantic Center home.

Teknoware produces a wide range of interior lighting for commercial vehicles, bus and transit systems, and emergency lighting systems for businesses, ships and other locations. The manufacturing facility will be approximately

**Opposite:**  
These hard  
hats and gold-  
plated shovels  
symbolize jobs  
in Horry County.



Opposite, from top to bottom: A rendering of what the Teknoware site will look like once completed.

Big diggers and bull dozers prepare the site where the 45,000-square-foot Teknoware facility will stand.

Representatives from the Myrtle Beach Regional Economic Development Corp., South Carolina Department of Commerce, the city of Conway, Teknoware and Horry County Council all did their part to make this project a reality. That included moving a little dirt.

45,000 square feet and will employ at least 45 people with advanced manufacturing skills, including welding. Those hired will average \$22 per hour, higher than the Horry County average of just under \$17 per hour.

In fact, the availability of skilled students coming out of HGTC was a real piece of the puzzle that fell into place to convince Teknoware to locate in Horry County.

“When Teknoware visited the Atlantic Center to view the site, one thing they did was visit the students at HGTC. They were impressed with the skills of the students and excited about the availability of trained workers. I know the resources and availability of a school right here that can train the type of employees they are looking for helped seal the deal,” said Sandy Davis, vice president and COO of the Myrtle Beach Regional Economic Development Corp. (MBREDC).

Josh Kay, president and CEO of MBREDC, spoke of the teamwork between the county, the city of Conway and the South Carolina Department of Commerce. He also said Davis deserves a lot of credit for getting it all wrapped up. “She worked on this deal for about three years. She found solutions to every issue that came up and negotiated with every group involved to complete a deal that was good for everyone.” Not an easy task with that many entities at the table.

“We are very excited to see this project coming to life. All of the hard work that got us here today means more than just a new business

is in town. It means 45 families will be given the opportunity to work, live and prosper in our community,” said Conway Mayor Barbara Blain-Bellamy.

And it is not just the 45 jobs that can be celebrated. Teknoware plans to use local machine shops and buy material locally to use in their manufacturing process, bringing additional commerce to the state.

Mark Lazarus, chairman of the Horry County Council, and Johnny Vaught, a member of the Horry County Council, were both on hand to celebrate the groundbreaking. During his speech, Lazarus presented a special gold and blue pin with the county’s symbol, the tree of knowledge, to Mikko Kosonen, president of Teknoware, and said, “Welcome to Team Horry County.” Vaught said, “Seeing this area (the Atlantic Center) complete is very exciting and a real plus for Horry County.”

“Locating here was just a perfect fit for us,” said Kosonen, who received a welcome from the county, the city, the state and others at the groundbreaking ceremony. He referenced available local business resources, skilled employees and the availability for training them, as well as overall technical support as part of the whole package that sold Teknoware on locating right here in South Carolina.

Teknoware will be located on Century Circle in the Atlantic Center. Construction should be complete in 2018. Those interested in applying should visit [scworks.org](http://scworks.org).

LOCATING HERE WAS JUST  
A PERFECT FIT FOR US. MIKKO KOSONEN





# PATIENT FOR POWER

*Months later, St. Croix hopeful  
for a return to normalcy.*

➤ **It seemed like the storm would never end.**

For 15 hours, residents hunkered down as Hurricane Maria battered the island of St. Croix with 175 mph winds and torrential rains. Many homes were flooded and missing roofs. Trees and power lines lay twisted and mangled on the ground. The island was devastated. The storm left a path of destruction in its wake not felt since Hurricane Hugo in 1989.

Reggie Graves,  
line tech C,  
reconnects  
wiring to a  
home while  
Brooks Cribb,  
line tech A,  
adds wiring to  
a new pole.

*Words and photography  
by Paul Zoeller*



➤ The morning of Sept. 20, Xiomara Herman of Christiansted and her husband, Roland, woke after riding out the storm, like many on the island. The storm had spared their home but left them in the dark. Xiomara did not know the extent of the damage to the island. Although she was grateful to be able to stay in her home, she and her family would learn to live without electricity for 68 days.

“It has been very interesting. You get to appreciate electricity, especially when you need it,” Xiomara said. “We don’t have potable water. We have cistern water so we need electricity to run our pump. Overall it has been a different experience.”



Clockwise from top: Xiomara Herman, of Christiansted, watches from her porch as Blake Ward, line tech A, reconnects her home to the electric grid; two months after Hurricane Maria devastated the island, much work is left to do before St. Croix residents can return to normal; Matthew Martin, line tech B, scavenges cable from a wooded area on St. Croix.

The Hermans were not alone. Hurricane Maria battered the small island, part of the U.S. Virgin Islands located 40 miles east of Puerto Rico, leaving 80 to 90 percent of the residents without power. However, the devastation reached much further than the island and hindered efforts to rebuild.

The island of St. Croix is powered by the Virgin Islands Water and Power Authority (WAPA) and is part of a unique system of power grids.





# “YOU CAN’T EXPECT OR PREPARE FOR HAVING TWO

# CAT 5s IN THE SAME YEAR, IN THE SAME MONTH.”

NEIL VANDERPOOL, VIRGIN ISLANDS WATER AND POWER AUTHORITY

Life goes on even in the midst of recovery efforts. Here, local boys play a game of basketball as Santee Cooper crews work on repairing power lines.

> WAPA also serves the islands of St. Thomas and St. John, but those islands are separated from St. Croix by a deep trench. The divide creates two districts with two distinct facilities completely separate from each other.

It all started on Sept. 6 when Hurricane Irma hit the islands of St. Thomas and St. John, devastating their transmission and distribution systems. The hurricane caused widespread ruin and damaged up to 90 percent of the power grid. As WAPA began the process of restoring electricity on the islands, the island of St. Croix was the lifeline for the recovery effort, supplying materials and water. Two weeks later Hurricane Maria hit St. Croix directly, leaving it in ruins.

The outlook was grim: One utility with two distinct systems, two Category 5 hurricanes that hit both districts separately with different degrees of damage.

WAPA had to recover from that, explained Neil Vanderpool, director of transmission and distribution at WAPA. “You can’t expect or prepare for having two Cat 5s in the same year, in the same month,” Vanderpool said.

Though WAPA had contractors in place before the hurricanes, there were not nearly enough people to reach the pace of restoration they were seeking. Their goal was to restore power to 90 percent of their customers – by Christmas. As a result, WAPA turned to stateside utilities to assist in the recovery effort. By having hundreds of boots on the ground, WAPA hoped their goal would become more of a reality.

Santee Cooper and utilities from Florida answered the call and left for St. Croix on Nov. 22, leaving their families right before the Thanksgiving holidays.







> A total of 13 Santee Cooper employees, including 12 line technicians and one mechanic, left Myrtle Beach and traveled to the Port of Palm Beach to load nine Santee Cooper trucks, including bucket trucks and digger derricks, on a barge to St. Croix. They then flew to St. Croix, eager to get to work.

Though the sound of generators filled the air, many islanders sat on their front porches to catch the cool breeze as it blew past.

Utility trucks pulling into Barren Spot were a welcome sight for many who had been without power for so long.

“As we’ve done many times in the past, we are responding to people in need,” said Mike Poston, vice president of retail operations. “Our line technicians selflessly volunteered to leave their families over the holidays in order to help restore electricity to people on St. Croix. It says a lot about their character to do that.”

“It means a lot to see the guys here,” Xiomara said. “I am excited. My birthday is on Friday, so this is a great birthday gift. I’ll be able to turn on my TV, lay down in my AC. I’ll enjoy some cool breeze and do my laundry, not by hand, and have a great time. Thank you guys so much!”

Line technicians began work in the town of Christiansted. In the neighborhood of Barren Spot, blue tarps provided by the Federal Emergency Management Agency dotted the view, protecting still-damaged roofs. Even after two months, trash piles grew on the sides of the streets as residents slowly rebuilt their homes.

As line crews worked, neighbors gathered in the streets to watch. Children enjoyed a game of basketball as buckets lifted linemen above them repairing lines. Street by street, poles were reconnected and transformers replaced. As the sun cast long shadows on the neighborhood, everyone watched and waited in hopes of having power restored.

Opposite, clockwise from top: Santee Cooper crews gather any supplies they can before setting out for the day; residents like this gentleman try to lend a hand to the crews working on their homes and neighborhoods; Line Tech A Blake Ward gets ready to reconnect a home to the electric grid; Joe Sawyer, line tech A, reaches for lines to reconnect.

This page: Santee Cooper crews walk back to the ship they temporarily called home after a 12-hour day on St. Croix.

**“It’s not for the money; it’s just to make people’s lives a little bit better than what they were yesterday.”**

MATTHEW MARTIN, SANTEE COOPER LINE TECHNICIAN B





**“Thank you guys so much!”** XIOMARA HERMAN



This page, from top: Taking a break for lunch, Eujenio Acosta, Virgin Islands Water and Power Authority lineman, serves up coconuts for Crew Supervisor Barney Long, Line Tech A Joe Sawyer and Line Tech A Blake Ward; Line Tech C Reggie Graves receives cases of water and Gatorade from local residents as thanks for getting the power back on.

Opposite page, from top: Excited to see linemen on their street, people in Christiansted stop the crews to take their photos; residents ask questions of the Santee Cooper crew members working near their homes; Line Tech C Chase Prince is handed a small bag of treats in one of many gestures of thanks made by island residents.



And for many, that’s exactly what happened when Santee Cooper crews came to town. With the flip of a fuse, a neighborhood had power for the first time in over two months. Children danced in the streets and adults ran out to hug those who restored a small bit of normalcy to their lives.

“I think that is the biggest reason why we do this. It’s not for the money; it’s just to make people’s lives a little bit better than what they were yesterday. We enjoy that,” said Matthew Martin, Santee Cooper line technician B.

The crew of 13 continued work in St. Croix through Dec. 20, when another group of Santee Cooper line technicians relieved them to continue restoration until late January. At the beginning of 2018, 92 percent of electric restoration on St. Croix was complete.

And as the Hermans’ power was restored, Xiomara danced on her front porch singing, “Happy birthday to me!”

“We’re just thankful we can help,” said Martin. <



# BIKIN' AT BIGGIN CREEK

MOUNTAIN BIKING  
LOWCOUNTRY STYLE

The light from the clear, November morning's sun shone brightly on the brown, grassy field. People gathered and enthusiastically unloaded their specialized two-wheeled vehicles off of larger cars and trucks.

A trendy food truck positioned itself at the edge of the forest near the entrance to the focal point of the day's festivities as children milled about. Food and libations were on tap for those who would be wearied by the awaiting woods.

Such was the scene at the Nov. 4 dedication of the Biggin Creek Bike Trail, a biking and hiking opportunity that has high appeal to mountain bike enthusiasts. The trail parallels the Tailrace Canal area on the northeastern boundary of Moncks Corner.



BY WILLARD STRONG

PHOTOGRAPHY BY  
PAUL ZOELLER

The 5-mile, undulating trail sits on Santee Cooper property, adjacent to the headquarters, and was made possible through a partnership between the town of Moncks Corner and Santee Cooper.

On hand for the dedication were Moncks Corner Mayor Michael Locklear and other town officials. The town's website states the trail largely became a reality due to "the support of its many volunteers who work to improve and maintain the trail and Mr. Lloyd 'Rusty' Smith, whose vision and hard work built this trail."

Smith is a biker and Santee Cooper employee in the waste management area. He and fellow riding enthusiast Russell Worrell, who works at Cross Generating Station, were on hand for the dedication.

"I think this is a good asset for the town and Berkeley County," said Worrell, a unit operator at Cross. "It's a tourist attraction for sure. The trail's a fun ride. If you're fit and knowledgeable and you watch where you're going, you can tackle it if you take your time. There are roots, hills and inclines, and that's what makes mountain biking challenging."

For those who planned the trail for years, last fall's opening represented the culmination of a dream that has finally become a reality.

"I am so glad the bike trail is now open to the public," said Brian Holmes, who headed Santee Cooper's property management department when the trail was being planned and constructed. "I bike myself and it's always a positive thing when something like this comes



together. Rusty Smith designed and built the trail. He has done 99 percent of the work on it. The 'Jones tract,' as this property is referred to, has very unusual topography for the Lowcountry. There are several short, but very steep bluffs."

"We're very excited," said Mayor Locklear. "We hope it brings a lot of bikers into town and we can show off our community."

The mayor credited the town's partnership with Santee Cooper for making Moncks Corner's newest recreational amenity a reality.

"Santee Cooper has been a very good steward with the town and we value our relationship," said Locklear. This view was echoed by Mayor Pro Tem David Dennis.

"They have always been such a big partner with us," Dennis said. "They do things that they really don't have to do, but they do it. They help Moncks Corner be a better place. We thank them for allowing us to use a part of their property for this. It will attract a different group of people who probably haven't come to Moncks Corner before now."

The trailhead and parking area are located in the field off Rembert Dennis Boulevard, just north of the Riverwood Drive entrance at

Above:  
Rusty Smith,  
a financial  
analyst at  
Santee  
Cooper  
who was  
involved  
in the  
Biggin Creek  
Bike Trail's  
construction,  
and Santee  
Cooper Land  
Agent III  
Deneene  
Guerry pose  
by the trail's  
entrance  
after the  
ribbon-  
cutting  
ceremony  
on Nov. 4.



The palette of autumn leaves adds to the seasonal beauty awaiting bikers and hikers journeying to Moncks Corner for a trail experience featuring diverse topography and wildlife.

Santee Cooper’s Moncks Corner headquarters, and nearly opposite Epson Plantation Drive.

As the Lowcountry population in general and Berkeley County in particular continues to swell, new residents are attracted to outdoor opportunities such as a biking and hiking trail. Dennis said that the trail serves to accentuate what is already here.

“We have the Tailrace Canal, Lake Moultrie, the Berkeley Blueways canoe and kayak trail, the river and now this trail,” said Dennis. Locklear and Dennis believe the new addition will help ecotourism expand in and around Moncks Corner, a benefit to the area’s lodging and restaurant offerings.

“A huge part of the appeal of Moncks Corner and Berkeley County’s economic activity involves ecotourism,” said Holmes. “The Biggin Creek trail provides a different kind of outdoor recreation activity that is enhancing the quality of life for local residents and bringing visitors to this part of the Lowcountry.”

Holmes said if you haven’t tried mountain biking, it’s a great way to get in touch with nature and the people you meet allows you to expand those horizons.

“Mountain biking is a fantastic workout and, although it’s very physically demanding, the excitement and focus involved makes it much more fun than typical exercise activities,” said Holmes. “Plus, it’s in the woods, and in my opinion, playing outside is good for the mind and body. Mountain bikers are also very friendly and social, so it’s a great way to meet new people.”

The trail’s opening is further evidence of the diversity of outdoor offerings found in the lands

around lakes Moultrie and Marion, the Santee Cooper Lakes.

Collectively, these two man-made bodies of water are South Carolina’s largest freshwater resource, and last year turned 75 years old. For decades, the lakes were about fishing, particularly striped bass fishing. Then, record-setting Arkansas blue catfish became the clarion call for anglers far and wide.

Then there’s the hearty lake-area golfing community, Old Santee Canal Park, Santee National Wildlife Refuge, Overton Beach Park and the numerous boat landings, marinas and fish camps that combine to make the five-county region an outdoor enthusiasts’ mecca.

These outdoor pursuits definitely have a measurable mark on the area. According to the most recent study by the S.C. Department of Parks, Recreation and Tourism, the annual economic impact of the Santee Cooper Lakes is approximately \$415 million. This represents a payroll of \$69.56 million, totaling 3,750 jobs and \$43.03 million in tax revenues.

For Mary Shriner, executive director of the Santee Cooper Counties Promotion Commission, the Biggin Creek Bike Trail is another activity to promote from her headquarters in the town of Santee.

“Any time you can market a different and new type of recreational opportunity for the public, that just makes my job easier,” said Shriner. “If you’ve got only a few things to offer, it can put you at a disadvantage. The Santee Cooper Lakes and surrounding area these days are about much more than fishing and boating.”

To view the Biggin Creek Bike Trail video, go to SanteeCooperTV on YouTube.



### WHAT IS A MOUNTAIN BIKE?

It’s not your grandfather’s Schwinn or Raleigh. According to author Sheldon Brown’s “Bicycle Glossary,” a mountain bike is a bicycle for off-road cycling. Mountain bikes share similarities with other bikes, but incorporate features designed to enhance durability and performance in rough terrain. These typically include a front or full suspension, large knobby tires, more durable wheels, more powerful brakes and lower gear ratios for climbing steep grades.







# BELL BAY SOLAR FARM

## THE SEEDS THAT BLOSSOMED

into the Bell Bay Solar Farm were planted back in September of 2001. That’s when Santee Cooper launched Green Power, the state’s first program to offer renewable energy to customers. The unique vision was to use the funds collected from Green Power sales to build new generation and develop renewable energy sources right here in South Carolina.

“Bell Bay is the first utility-scale solar station to be brought on our system entirely using Green Power funds,” said Stephen Spivey, Santee Cooper’s manager of renewable energy. “Over the last 16 years, we have built Green Power Solar School demonstration units all across South Carolina. They have become a real educational tool for the schools and for us. We’ve learned a lot about the technology, including its benefits and its limitations.”

The Bell Bay Solar Farm was built on a 10.03-acre tract, about 7.5 miles south southwest of Conway. It sits along U.S. Highway 701,

adjacent to the newly completed Bucksville transmission substation and Thompson Farm distribution substation.

“We’re always on the lookout for cost-effective renewable generation,” said Santee Cooper Senior Engineer Elizabeth Kress. “At Bell Bay it all came together. We were even able to aim the solar panels to maximize generation and match our summer peak load.”

There’s science behind that. The way that customers along the Grand Strand use electricity daily has a pattern. As a rule, in the summer months, folks use less electricity in the morning, more during the heat of the day and then less as the sun creeps down. The highest point where the most electricity is used is called the peak.

Through a series of complex computations like azimuth, declination and tilt, Santee Cooper engineers devised a way to position the 5,904 solar panels to maximize power

output and more reliably mirror peak summer usage. What that means is Bell Bay Solar Farm’s 1.56-megawatts AC power output is hitting the grid right when it’s needed most. Timing is everything.

“It may seem counterintuitive, but we actually sacrifice a little of the spring and fall output to better follow our summer peak,” added Kress.

It should come as no surprise that the Grand Strand is an increasingly popular summer tourist destination, with nearly 18 million people visiting during the summer of 2016. Along with that growth comes increasing demand for electricity and the opportunity for solar to help meet it.

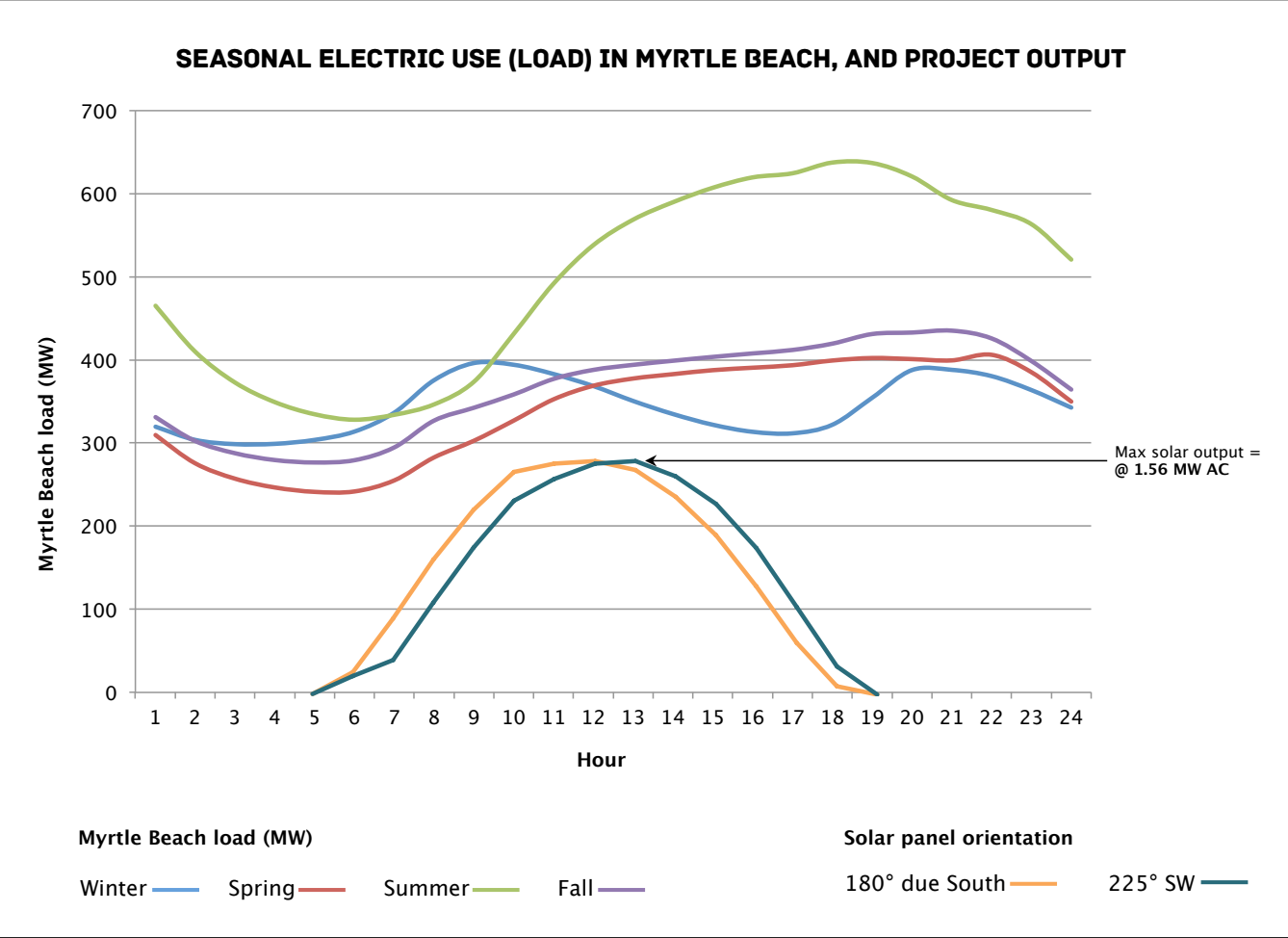
“The Myrtle Beach area has a unique demand curve... the summer’s highest demand occurs in the late afternoon and early evening, so we have positioned our solar panels to catch the most sun possible during that time,” Kress said.

BELL BAY SOLAR FARM BY THE NUMBERS	
Size	10.03 acres
Output (DC)	2.01 MW
Output (AC)	1.56 MW
Panels	5,904
Annual Production	2,827 MWh
CO <sub>2</sub> Emissions Impact	39 tons

BY PHIL FAIL  
PHOTOGRAPHY  
BY PAUL ZOELLER

Opposite:  
On Nov. 2, a worker with Alder Energy System installs the last of the solar panels at Bell Bay Solar Farm, which is located along U.S. Highway 701 near Conway and will serve the Grand Strand.





The above graph demonstrates how changing the angle of the solar panels can maximize usage of the power produced. By changing the angle of the panels by 45 degrees, we can time-shift the power output of the station to more closely match the peak electricity use of our customers along the Grand Strand. This puts more solar power into use even for customers who don't have panels at their home or business.



Santee Cooper Senior Engineer Elizabeth Kress (right) and Darrin Green, Alder Energy Systems project manager, discuss the plans for Bell Bay Solar Farm.

## DID YOU KNOW? ROOFTOP SOLAR SOLAR SHARE

Right now, all Santee Cooper customers can enjoy the benefits of solar power, whether they install it on the roof or subscribe to the Santee Cooper Solar Share community solar program.

We offer rooftop solar programs for residential and commercial customers that help make putting solar panels on your roof more affordable by paying part of the cost with rebates and credits.

Our Solar Share program lets customers get the benefits of solar even if they don't have a roof. They just subscribe to a share of our community solar power and get a monthly energy credit on their bill.

**FIND OUT MORE AT  
WWW.SANTEECOOPERSOLAR.COM**

**“BELL BAY IS THE FIRST UTILITY-SCALE SOLAR STATION TO BE BROUGHT ON OUR SYSTEM ENTIRELY USING GREEN POWER FUNDS.”**

**STEPHEN SPIVEY**

Of course, the asterisk that always accompanies solar is that power is only generated when the sun is shining. So, for now, the night life must be fueled by more traditional electricity sources.

Solar panels generate Direct Current (DC) while our homes and businesses use Alternating Current (AC). To turn the DC to AC requires the use of inverters. One innovation that makes Bell Bay an even more reliable generation source is it employs 28, 50 to 60 kilowatt (kW) inverters to do the job. By contrast, the Colleton Solar station uses five 250 kW inverters

to do the same job. Using more, smaller capacity units means the failure of any one unit, not an unheard of occurrence, puts less of the total output at risk.

In the end, the Bell Bay project is a promise realized, a promise that started with construction of the first Green Power generation at Horry County Landfill. Green Power then helped fund the development of similar units in Anderson, Berkeley, Georgetown, Lee and Richland counties, and now the Bell Bay Solar Farm. More than that, it's a promise for the future.





## Conserve energy, conserve cash.

Small changes in the way you use electricity in your home take little effort, while offering great reward. Limiting your use of hot water, unplugging unused appliances and even changing the types of light bulbs you use can add up to savings.

If you're not sure where to start, check out Santee Cooper's free Online Energy Checkups.

When you complete an Online Energy Checkup, you'll find out if your home is in need of any energy efficiency improvements. It's free, it's fast and you can complete it from the comfort of your couch.

Visit [santeecooper.com](http://santeecooper.com) for more energy saving tips and to complete your free Online Energy Checkup.

## Dorchester County has ribbon-cutting for \$4 million spec building

Dorchester County, Edisto Electric Cooperative and Santee Cooper officials on Nov. 2 celebrated a ribbon-cutting at a 100,000-square-foot speculative building at the Winding Woods Commerce Park.

The facility is on U.S. Highway 78 between Summerville and St. George.

Santee Cooper loaned \$2.1 million to assist in the \$4 million building that is served by Edisto Electric. Based in Bamberg, Edisto Electric provided funding for environmental reviews, surveys, a wetlands study and a 3-D rendering of the park. Santee Cooper-generated electricity is Edisto's source of power.

In their marketing plans, county economic development officials stated earlier this year that Winding Woods is tailored for industries seeking tracts of property that could be subdivided into 20- to 50-acre lots. Other selling points include convenient access to Interstate 95 and the Port of Charleston.

## Lake Marion Regional Water System Earns "Best Tasting Water in S.C." Award

The Lake Marion Regional Water System (LMRWS) recently earned the distinction of the best tasting water in the state in 2017 by the South Carolina Rural Water Association, an award it also won in 2012. Water samples are judged on taste, smell and clarity.

Owned and operated by wholesale provider Santee Cooper, the water system has a treatment plant near Santee, S.C., rated at 8 million gallons per day (mgd). It is the source of water to the towns of Santee, Bowman and Vance.

The system has 38.2 miles of pipeline. The most recent addition being the 10.5-mile pipeline constructed from Harleyville to Ridgeville. Water from the treatment plant is purchased by the Lake Marion Regional Water Agency, comprised of Berkeley, Calhoun, Dorchester and Orangeburg counties, and the town of Santee.

The LMRWS will observe its 10th anniversary this year. The \$36 million system entered commercial operation on May 1, 2008.

Santee Cooper also owns and operates the Santee Cooper Regional Water System, which has a 42-mgd treatment plant on Lake Moultrie near Moncks Corner. That system, which entered commercial operation on Oct. 1, 1994, won the "best tasting water in South Carolina" award in 2014 and 2015.



CCU Football Game Scores with Green Power

On Dec. 2, Santee Cooper and Coastal Carolina University joined forces for the inaugural Chants Up for Green Power Game. The game was run on 100 percent Santee Cooper Green Power and was sponsored by the Horry County Solid Waste Authority, which happens to be the birthplace of Green Power here in South Carolina.

This game added to the list of renewable energy firsts between Santee Cooper and Coastal Carolina University. Santee Cooper was the first company to produce Green Power in the state, and CCU is home to the first solar pavilion in South Carolina. The pavilion is a 16-kilowatt solar project that has solar panels that use the sun for energy.

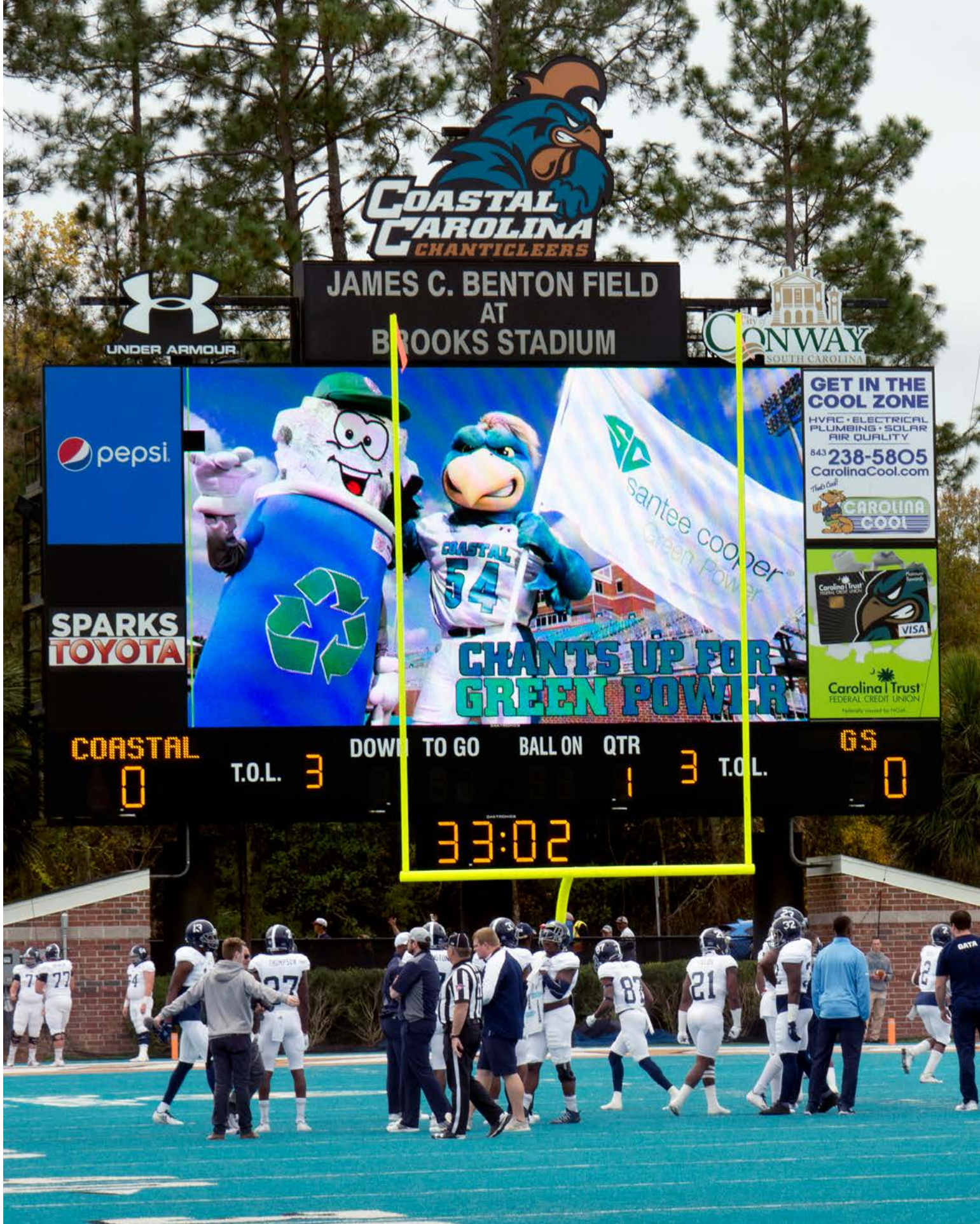
This was a zero-waste game for Coastal Carolina University. To achieve this goal, their sustainability team worked to divert 90 percent of the waste produced inside the stadium, suite and alumni tailgate areas through composting and recycling. This is a great way that CCU Teal Nation and Santee Cooper Green Power have come together to make a difference.

Santee Cooper Board approves 2018 budget

In December, Santee Cooper’s Board of Directors approved a \$2.1 billion budget for 2018. It includes \$1.7 billion for the electric system, \$9.8 million for the water systems and \$378.6 million for capital expenditures. Approximately 42 percent of the \$1.7 billion electric system budget is allocated for fuel and purchased power.

The budget includes annual cost reductions of \$40 million. Further cost reductions and restructuring are expected through elimination of positions as employees retire and through deferred capital projects.

Opposite:  
CCU, Santee Cooper and the Horry County Solid Waste Authority celebrate a triple win. CCU won the game, it was a successful inaugural Green Power Event, and it was a zero waste game.







# EMPOWERING VISION

With our low-cost, reliable electricity and choice industrial sites,  
Santee Cooper continues to help new businesses picture a better future  
– and to power South Carolina toward  
**Brighter Tomorrows, Today.**

